

SENATE, No. 3216

STATE OF NEW JERSEY 219th LEGISLATURE

INTRODUCED DECEMBER 7, 2020

Sponsored by:

Senator STEVEN V. OROHO

District 24 (Morris, Sussex and Warren)

Senator LINDA R. GREENSTEIN

District 14 (Mercer and Middlesex)

Co-Sponsored by:

Senators Corrado, Singleton, Testa, Cunningham and Gopal

SYNOPSIS

“Manufacturing in Higher Education Act”; requires various State entities to promote manufacturing career pathways for students and provides assistance to manufacturing industry.

CURRENT VERSION OF TEXT

As introduced.



(Sponsorship Updated As Of: 6/15/2021)

1 AN ACT concerning the promotion of the manufacturing industry in
2 higher education and supplementing Title 18A of the New Jersey
3 Statutes, Title 34 of the Revised Statutes, and Title 52 of the
4 Revised Statutes.

5
6 **BE IT ENACTED** by the Senate and General Assembly of the State
7 of New Jersey:

8
9 1. This act shall be known and may be cited as the
10 “Manufacturing in Higher Education Act.”

11
12 2. a. The Secretary of Higher Education, in consultation with
13 the Commissioner of Education, the Commissioner of Labor and
14 Workforce Development, the New Jersey Council of County
15 Colleges, the New Jersey Council of County Vocational Schools,
16 and representatives of the business community, shall design a
17 manufacturing career pathway to be offered through the county
18 colleges and county vocational school districts to provide students
19 interested in pursuing a career in manufacturing with the instruction
20 and skills necessary to gain employment in the manufacturing or
21 advanced manufacturing sectors.

22 b. The manufacturing career pathway required pursuant to
23 subsection a. of this section shall include traditional and advanced
24 manufacturing processes and methods of production including, but
25 not limited to, the machinery, technology, tools, and equipment
26 used in a wide range of manufacturing industries.

27
28 3. a. The Secretary of Higher Education, in consultation with
29 the Commissioner of Labor and Workforce Development and the
30 New Jersey Economic Development Authority, shall establish the
31 New Jersey STEM Entrepreneur Fellowship Program in county
32 colleges and four-year institutions of higher education.

33 b. The secretary shall work in consultation with the New Jersey
34 Economic Development Authority and the Commissioner of Labor
35 and Workforce Development to fund no less than 20 fellowships,
36 administered by the secretary, which focus on supporting
37 entrepreneurs in the Science, Technology, Engineering and
38 Mathematics (STEM) fields. The fellowships may be provided to
39 individuals who have proven to the secretary that they have an idea
40 to create, advance or develop a product in the STEM field which
41 will have a beneficial impact on society and will result in a self-
42 sustaining business in the future.

43 The fellowships shall be issued for three years each and shall be
44 used primarily to support the entrepreneurs in commercializing the
45 idea and developing a well-structured business.

46 Priority will be given to fellowships which are submitted with
47 the support of an incubator supported by the State of New Jersey or
48 any of its public entities.

1 c. The secretary, in consultation with the New Jersey
2 Economic Development Authority, shall conduct an evaluation of
3 the effectiveness of the New Jersey STEM Entrepreneur Fellowship
4 Program to establish new businesses no later than five years after
5 the approval of the first fellowship.

6
7 4. a. The Secretary of Higher Education shall establish and
8 administer a “Higher Education Manufacturing Grant Program.”
9 The program shall annually award \$10 million to New Jersey public
10 institutions of higher education for the purpose of establishing or
11 expanding programs in the manufacturing fields. The grants shall
12 be allocated to public institutions of higher education on a
13 competitive basis.

14 b. A public institution of higher education that receives a grant
15 under the program shall use the funds to establish or expand
16 programs and curricula in the fields of manufacturing,
17 manufacturing engineering, or advanced manufacturing.

18 c. To be eligible for consideration of a grant award, a public
19 institution of higher education shall submit an application to the
20 Secretary of Higher Education, in accordance with application
21 procedures and requirements prescribed by the secretary. A grant
22 application shall include a complete description of the institution’s
23 specific plans and objectives for the use of the grant funds and any
24 other information specified by the secretary.

25 d. The secretary shall establish selection criteria for the
26 awarding of grant funds under the program, and shall award grants
27 through a competitive process based upon review of the
28 applications and subject to the availability of funds. The secretary
29 shall establish the amount for each grant that is approved.

30
31 5. a. There is created within the Office of the Secretary of
32 Higher Education a fund to be known as the “Higher Education
33 Manufacturing Grant Fund.” The fund shall be used to provide
34 grants to New Jersey public institutions of higher education under
35 the “Higher Education Manufacturing Grant Program” established
36 pursuant to section 4 of P.L. , c. (C.) (pending before the
37 Legislature as this bill).

38 b. The fund shall be annually credited with money appropriated
39 by the State, any moneys received by the State from corporate
40 donors or other private sector support, and any federal funds which
41 may become available for higher education and manufacturing-
42 related purposes.

43
44 6. The Secretary of Higher Education shall adopt rules and
45 regulations pursuant to the “Administrative Procedure Act,”
46 P.L.1968, c.410 (C.52:14B-1 et seq.), necessary to effectuate the
47 purposes of section 2 through section 5 of P.L. , c. (C.)
48 (pending before the Legislature as this bill).

1 7. a. The Commissioner of Education, in consultation with the
2 Secretary of Higher Education, the Business Action Center in the
3 Department of State, the New Jersey Manufacturing Extension
4 Program, and representatives of business and industry, shall
5 establish and maintain a State-recognized list of industry-
6 recognized credentials in the advanced manufacturing field to assist
7 county vocational school districts, institutions of higher education,
8 and the workforce development system in developing appropriate
9 educational programs to enable students to more adequately meet
10 the advanced technical training needs in this field.

11 b. The Commissioner of Education, in consultation with the
12 Secretary of Higher Education, the Business Action Center in the
13 Department of State, the New Jersey Manufacturing Extension
14 Program, and representatives of business and industry, shall identify
15 courses of study for careers in emerging manufacturing industries,
16 including careers in industrial marketing, mechanical engineering,
17 computer science, electronics, and mechatronics.

18
19 8. The Secretary of State, in consultation with the
20 Commissioner of Labor and Workforce Development, shall
21 designate an employee of the Department of State to act as a liaison
22 between the State and manufacturing businesses located in this
23 State. The duties of the liaison shall be to assist manufacturing
24 businesses by:

25 a. advertising manufacturing businesses' products or services
26 nationally and internationally through the Business Action Center in
27 the Department of State; and

28 b. establishing a business referral service where manufacturing
29 businesses may be referred to other State, federal, or private
30 business resource organizations, such as the New Jersey
31 Manufacturing Extension Program, the State's Small Business
32 Development Centers, and other business organizations that provide
33 specialized business development assistance, technology
34 information, consulting management, and customized one-to-one
35 counseling concerning business plans and technical assistance with
36 significant business topics and issues.

37
38 9. a. The Secretary of State, in consultation with the
39 Commissioner of Labor and Workforce Development, the New
40 Jersey Economic Development Authority, and other State
41 departments, agencies, boards, commissions, and authorities, shall
42 direct resources, create incentives, and provide technological,
43 financial, and workforce development opportunities for
44 manufacturing businesses.

45 b. The Secretary of State may call upon any department,
46 authority, commission, board, office, division, or agency of the
47 State to provide any information, resources, or other assistance
48 deemed necessary to carry out the provisions of P.L. , c. (C.)

1 (pending before the Legislature as this bill). This may include, but
2 not be limited to: the New Jersey Economic Development Authority
3 for assistance with manufacturing business funding assistance
4 programs; the Department of Labor and Workforce Development
5 for assistance with developing workforce development strategies for
6 manufacturing businesses; the Department of Transportation and
7 the New Jersey Transit Corporation for assistance with enhancing
8 public transportation operations for employees of manufacturing
9 businesses; the Business Action Center in the Department of State
10 for assistance with manufacturing business attraction, retention, and
11 expansion efforts and advising on smart growth development
12 strategies; and the Department of Community Affairs for assistance
13 to manufacturing businesses participating in the urban enterprise
14 zone program established by P.L.1983, c.303 (C.52:27H-60 et al.).
15

16 10. a. The New Jersey Economic Development Authority, in
17 consultation with the Business Action Center created in the
18 Department of State and an institution of higher education, may
19 designate an institution of higher education or other entity as a
20 manufacturing and production business resource center to provide
21 services and assistance to manufacturing businesses to assist them
22 to modernize, maximize their efficiency, and expand their
23 production through the development and commercialization of
24 innovative products.

25 b. The authority shall grant this designation to any institution
26 of higher education or other entity that meets qualifications
27 established by the authority. The authority shall base the
28 qualifications upon the ability of the institution or entity to provide
29 specialized services and information to manufacturing and
30 production facilities, which may include specialization in discrete
31 aspects of the manufacturing and production process, or to provide
32 more comprehensive services.

33 c. The authority shall refer a manufacturing business deemed
34 eligible by the authority to a manufacturing and production business
35 resource center or other organization qualified to provide services
36 to small and mid-sized manufacturing businesses, which services
37 shall include, but not be limited to:

38 (1) assistance with product development, including:

39 (a) a preliminary technical evaluation of a product and any
40 design and materials issues,

41 (b) assistance in providing a connection with available research
42 and development resources, prototype development resources, and
43 product evaluation and testing resources, and

44 (c) the selection, implementation and optimization of available
45 technologies;

46 (2) assistance in production planning and inventory control;

47 (3) assistance in identifying appropriate factory and office
48 automation and modernizing production capacity;

- 1 (4) assistance in identifying sources of supply, including any
- 2 Internet-based listing of New Jersey-based suppliers of goods and
- 3 services;
- 4 (5) assistance in establishing a quality assurance program;
- 5 (6) assistance with market analysis and development, including
- 6 assistance in identifying export opportunities, provided by the
- 7 Business Action Center;
- 8 (7) assistance with distribution issues;
- 9 (8) assistance in developing the skills of the existing workforce
- 10 or procuring skilled workers;
- 11 (9) referral to financing resources; and
- 12 (10) assistance in preliminary patent and trademark searches.

13
14 11. a. There is created in the New Jersey State Employment and
15 Training Commission, established pursuant to section 5 of
16 P.L.1989, c.293 (C.34:15C-2), the New Jersey Advanced
17 Manufacturing Council.

18 b. The council shall consist of 11 members who are individuals
19 with experience in the fields of labor, education, or workforce
20 development or training. The 11 members shall be appointed by the
21 Governor as follows: two members shall be recommended by the
22 Senate President; two members shall be recommended by the
23 Speaker of the General Assembly; one member shall be
24 recommended by the Minority Leader of the Senate; one member
25 shall be recommended by the Minority Leader of the General
26 Assembly; and, five members shall be recommended by the
27 Governor. The members shall be appointed for five-year terms,
28 except, of the members first appointed, four members shall be
29 appointed for five-year terms, four member shall be appointed for
30 three-year terms, and three members shall be appointed for four-
31 year terms. Each member shall hold office for the term of
32 appointment and until a successor is appointed and qualified. A
33 member appointed to fill a vacancy occurring in the membership of
34 the council for any reason other than the expiration of the term shall
35 have a term of appointment for the unexpired term only. Vacancies
36 shall be filled in the same manner as the original appointment. A
37 member may be appointed for any number of successive terms. Any
38 member appointed may be removed from the council by the
39 appointing authority, as the case may be, for cause, after a hearing
40 and may be suspended by the appointing authority pending the
41 completion of the hearing.

42 c. Members of the council shall serve without compensation,
43 but may be reimbursed for necessary expenses incurred in the
44 performance of their duties as members. Action may be taken and
45 motions and resolutions may be adopted by the council at a council
46 meeting by an affirmative vote of a majority of the members. The
47 council shall elect from its members a chairperson. Advanced
48 notification for, and copies of the minutes of, each meeting of the

1 council shall be filed with the Governor, the President of the
2 Senate, and the Speaker of the General Assembly.

3

4 12. The council shall:

5 a. convene and enable industry-led, private-public partnerships
6 focused on engaging New Jersey institutions of higher education in
7 manufacturing innovation;

8 b. design and implement an advanced manufacturing initiative
9 to facilitate collaboration and information sharing across State
10 departments and agencies;

11 c. assist private companies to enhance technological transfer in
12 New Jersey manufacturing industries to help companies overcome
13 technical obstacles to scaling up production of new technologies;
14 and

15 d. submit an annual report to the Governor, to the Legislature
16 pursuant to section 2 of P.L.1991, c.164 (C.52:14-19.1), and to the
17 State Employment and Training Commission, of its assessments and
18 recommendations to enhance State policy related to the advanced
19 manufacturing industry in New Jersey.

20

21 13. The council is authorized to:

22 a. hold public hearings;

23 b. employ staff, responsible to the Executive Director of the
24 State Employment and Training Commission, to assist the council
25 to implement the purposes of this act; and

26 c. avail itself of the services of the employees and have access
27 to the records of any instrumentality of the State, as necessary or
28 useful to implement the purposes of this act.

29

30 14. This act shall take effect immediately.

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32

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STATEMENT

34

35 This bill requires various State entities to promote manufacturing
36 career pathways for students and provides assistance to the
37 manufacturing industry. Under the bill, the Secretary of Higher
38 Education, in consultation with the Commissioner of Education, the
39 Commissioner of Labor and Workforce Development, the New
40 Jersey Council of County Colleges, the New Jersey Council of
41 County Vocational Schools, and representatives of the business
42 community, will design a manufacturing career pathway to be
43 offered through the county colleges and county vocational school
44 districts to provide students interested in pursuing a career in
45 manufacturing with the instruction and skills necessary to gain
46 employment in the manufacturing or advanced manufacturing
47 sectors. The manufacturing career pathway will include traditional
48 and advanced manufacturing processes and methods of production

1 including, but not limited to, the machinery, technology, tools, and
2 equipment used in a wide range of manufacturing industries.

3 Under the bill, the secretary, in consultation with the
4 Commissioner of Labor and Workforce Development and the New
5 Jersey Economic Development Authority, will establish the New
6 Jersey STEM Entrepreneur Fellowship Program in county colleges
7 and four-year institutions of higher education to fund no less than
8 20 fellowships, administered by the secretary, which focus on
9 supporting entrepreneurs in the STEM fields. The fellowships may
10 be provided to individuals who have proven to the secretary that
11 they have an idea to create, advance or develop a product in the
12 STEM field which will have a beneficial impact on society and will
13 result in a self-sustaining business in the future. The fellowships
14 will be issued for three years each and will be used primarily to
15 support the entrepreneurs in commercializing the idea and
16 developing a well-structured business.

17 The bill also directs the secretary to establish and administer a
18 “Higher Education Manufacturing Grant Program.” The program
19 will annually award \$10 million to New Jersey public institutions of
20 higher education for the purpose of establishing or expanding
21 programs and curricula in the fields of manufacturing,
22 manufacturing engineering, or advanced manufacturing. The grants
23 will be awarded to public institutions of higher education through a
24 competitive process.

25 The bill also requires the Commissioner of Education, in
26 consultation with the Secretary of Higher Education, the Business
27 Action Center in the Department of State, the New Jersey
28 Manufacturing Extension Program, and representatives of business
29 and industry, to establish and maintain a State-recognized list of
30 industry-recognized credentials in the advanced manufacturing
31 field. The list will assist county vocational school districts,
32 institutions of higher education, and the workforce development
33 system in developing appropriate educational programs to enable
34 students to more adequately meet the advanced technical training
35 needs in this field. Those entities will also identify courses of study
36 for careers in emerging manufacturing industries, including careers
37 in industrial marketing, mechanical engineering, computer science,
38 electronics, and mechatronics.

39 Under the bill, the Secretary of State, in consultation with the
40 Commissioner of Labor and Workforce Development, will
41 designate an employee of the Department of State to act as a liaison
42 between the State and manufacturing businesses located in this
43 State. The duties of the liaison will be to assist manufacturing
44 businesses by:

- 45 • advertising manufacturing businesses’ products or services
46 nationally and internationally through the Business Action
47 Center; and

- 1 • establishing a business referral service where manufacturing
2 businesses may be referred to other State, federal, or private
3 business resource organizations.

4 The Secretary of State is to work with State departments,
5 agencies, boards, commissions, and authorities to direct resources,
6 create incentives, and provide technological, financial, and
7 workforce development opportunities for manufacturing businesses.

8 The bill also provides that the New Jersey Economic
9 Development Authority, in consultation with the Business Action
10 Center and an institution of higher education, may designate an
11 institution of higher education or other entity as a manufacturing
12 and production business resource center to provide services and
13 assistance to manufacturing businesses to assist them to modernize,
14 maximize their efficiency, and expand their production through the
15 development and commercialization of innovative products. Under
16 the bill, the authority will refer a manufacturing business deemed
17 eligible to a manufacturing and production business resource center
18 or other organization qualified to provide services to small and mid-
19 sized manufacturing businesses. The bill sets forth the various
20 services that will be provided by the manufacturing businesses.

21 The bill also establishes in the New Jersey State Employment
22 and Training Commission, the New Jersey Advanced
23 Manufacturing Council. The council will consist of 11 members
24 who are individuals with experience in the fields of labor,
25 education, or workforce development or training. The bill directs
26 the council to:

- 27 • convene and enable industry-led, private-public partnerships
28 focused on engaging New Jersey institutions of higher
29 education in manufacturing innovation;
- 30 • design and implement an advanced manufacturing initiative
31 to facilitate collaboration and information sharing across
32 State departments and agencies;
- 33 • assist private companies to enhance technological transfer in
34 New Jersey manufacturing industries to help companies
35 overcome technical obstacles to scaling up production of
36 new technologies; and
- 37 • submit an annual report to the Governor, to the Legislature,
38 and to the State Employment and Training Commission, of
39 its assessments and recommendations to enhance State
40 policy related to the advanced manufacturing industry in
41 New Jersey.